Case 3339

Celaenorrhinus ratna Fruhstorfer, 1908 (Insecta, Lepidoptera): proposed conservation of the specific name

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Abstract. The purpose of this application, under Article 23.9.3 of the Code, is to conserve the specific name *Celaenorrhinus ratna* Fruhstorfer, 1908 for a widespread hesperiid butterfly, very common in the tropics. The name is threatened by a senior subjective synonym *Celaenorrhinus kawakamii* (Matsumura, 1907), which has not been catalogued or used since 1907. It is proposed that the name *ratna* Fruhstorfer, 1908 is conserved by suppression of *kawakamii* Matsumura, 1907.

Keywords. Nomenclature; taxonomy; HESPERIIDAE; *Celaenorrhinus ratna*; *Celaenorrhinus kawakamii*; hesperiid butterfly; Asia.

- 1. Matsumura (1907, p. 50) described *kawakamii* as a species of *Notocrypta* Nicéville, 1889 from Taiwan. Since 1907 the name *kawakamii* has never been catalogued or used by any author except Inomata et al. (2000) who suggested suppressing it, although they did not re-examine the types.
- 2. Fruhstorfer (1908, p. 49) described *Celaenorrhinus sumitra ratna* from Taiwan in a short article. A year later Fruhstorfer (1909, p. 135) assigned *ratna* to *Celaenorrhinus consanguinea* Leech, 1891. This assignment was followed by Fruhstorfer (1910, p. 61), Matsumura (1919, pl. 50, fig. 2; 1929, p. 34; 1931, p. 580), Seitz (1927, p. 1036). Evans (1926, p. 65; 1932, p. 324), Esaki (1931, p. 107; 1932, p. 158), Hirayama (1933, pl. 59, fig. 12) and Sonan (1936, p. 211). Evans (1949) treated *ratna* as a species of *Celaenorrhinus*, to which he assigned three subspecies (*ratna* Fruhstorfer, 1908, *tytleri* Evans, 1926 (p. 66) and *daplme* Evans, 1949 (p. 95)). This taxonomy has been accepted and used by subsequent authors, e.g. Okano & Okura (1959, p. 64), Shirôzu (1960, p. 380), Chen (1974, p. 282), Yamanaka (1980, p. 101), Bridges (1983, p. 1.8), Hamano (1986, p. 254), Ae et al. (1987, p. 37), Smith (1989, p. 245; 1994, p. 245), Hsu (1990, p. 146; 1999, p. 16; 2002, p. 349), Chiba et al. (1992, p. 130), Haribal (1992,

- p. 196), Uchida (1991, p. 212; 1995, p. 206), Chang (1993, p. 122), Chou (1994, p. 703; 1998, p. 271; 1999, p. 360), Lin (1994, p. 161; 2004, p. 260), Lee & Wang (1997, p. 41; 1999, p. 254; 2002, p. 292), Chang (1998, p. 354; 2000, p. 18), Watanabe (1998, p. 164) and Hsu et al. (in press).
- 3. Hsu et al. (in press) designated the lectotype of *Notocrypta kawakamii* Matsumura, 1907. The lectotype is housed in the Systematic Entomology Laboratory, Faculty of Agriculture, Hokkaido University of Japan (SEHU), and is conspecific with *Celaenorrhimus ratna* Fruhstorfer, 1908. The name *kawakamii* Matsumura, 1907 is therefore a senior subjective synonym of *ratna* Fruhstorfer, 1908.
- 4. Celaenorrhinus ratna is the most common Celaenorrhinus species in Taiwan (Okano & Okura, 1959; Hamano, 1986; Lin, 2004) and it has four currently recognized subspecies in India, the northwest Himalayan region (Evans, 1949) and southwestern China (Huang, 2001). Celaenorrhinus is the largest hesperiid genus in Taiwan (Hsu, 1990) and one of the largest genera in the world, distributed throughout the tropics (de Jong, 1982). Members of this genus are known to be very similar to one another and difficult to identify (Shirôzu, 1960; Hamano, 1986). To use the name kawakamii Matsumura, 1907 in place of its junior subjective synonym ratna Fruhstorfer, 1908 would involve a change in the name of a widespread species. The resurrection of the long-forgotten name kawakamii would cause unnecessary confusion in the taxonomic literature dealing with identifications within the genus Celaenorrhinus and would lead to nomenclatural instability. The name kawakamii was described after 1899, thus the conditions of Article 23.9.1.1 of the Code (Reversal of Precedence) are not met and a ruling by the Commission is needed for formal suppression of the name.
- 5. The International Commission on Zoological Nomenclature is accordingly asked:
 - (1) to use its plenary power to suppress the name *kawakamii* Matsumura, 1907, as published in the binomen *Notocrypta kawakamii*, for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;
 - (2) to place on the Official List of Specific Names in Zoology the name *ratna* Fruhstorfer, 1908, as published in the trinomen *Celaenorrhinus sumitra ratna*;
 - (3) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the name *kawakamii* Matsumura, 1907, as published in the binomen *Notocrypta kawakamii* and as suppressed in (1) above.

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References

Ae, S.A., Hara, K., Harada, I., Harada, M., Ina, H., Nagami, K., Teshi, N. & Yamada, H. 1987. Butterflies collected by the entomological survey of the Japan Entomological Academy to Nepal Himalaya, 1982. *Bulletin of the Japan Entomological Academy*, 10: 1–92.

Bridges, C.A. 1983. Catalogue of the Family-group, Genus-group and Species-group names of the Hesperiidae (Lepidoptera) of the World. 590 pp. Bridges, Urbana.

Chang, B.S. 1993. *Identification of butterflies in Taiwan*. 149 pp. Vacation Publishing Co., Taipei.

Chang, Y.J. 1998. Insects in color, vol. 2. 413 pp. Yuan-Liou Publishing Co., Taipei.

Chang, Y.J. 2000. Observing butterflies in Taiwan. 171 pp. Morning Star Publishing Inc., Taipei.

Chen, W. 1974. Butterflies of Taiwan in colour. 353 pp. Chinese Culture Press, Taipei.

Chiba, H., Hsu, Y.F. & Shirôzu, T. 1992. Hesperiidae. Pp. 130–132 in Heppner, J.N. & Inoue, H., Lepidoptera, vol. 1, part 2: checklist. 49, 276 pp. Association for Tropical Lepidoptera, Gainesville.

Chou, I. 1994. Monographia Rhopalocerorum Sinensium. 854 pp. Henan Scientific and Technological Publishing House, Zhenzhou.

Chou, I. 1998. Classification and identification of Chinese butterflies. 349 pp., 90 pls. Henan Scientific and Technological Publishing House, Zhenzhou.

Chou, I. 1999. Chinese butterflies in colour. 385 pp. Henan Scientific and Technological Publishing House, Zhenzhou.

Esaki, T. 1931. On seven Formosan butterflies. Zephyrus, 3: 104-112.

Esaki, T. 1932. A distributional note on Formosan butterflies. Zephyrus, 4: 134-159.

Evans, W.H. 1926. The identification of Indian butterflies. *Journal of the Bombay Natural History Society*, 31: 49–83.

Evans, W.H. 1932. The identification of Indian butterflies. 2nd edition. 10, 454 pp., 32 pls. Bombay Natural History Society. Madras.

Evans, W.H. 1949. A Catalogue of the Hesperiidae from Europe, Asia and Australia in the British Museum (Natural History). 19, 502 pp. British Museum (Natural History), London.

Fruhstorfer, H. 1908. Lepidopterologisches Pêle-Mêle. I. Neue ostasiatische Rhopaloceren. Entomologische Zeitschrift, 22: 48-49.

Fruhstorfer, H. 1909. Neue Hesperiden. Entomologische Zeitschrift, 23: 135-139.

Fruhstorfer, H. 1910. Neue Hesperiden des Indo-Malayischen Faunengebietes und Besprechung verwandter Formen. Deutsche Entomologische Zeitschrift (Iris), 24: 58–104.

Hamano, E. 1986. Ecological encyclopedia of Taiwanese butterflies. 474 pp. Kodansha, Tokyo, Haribal, M. 1992. The butterflies of Sikkim and their natural history. 217 pp. Sikkim Nature Conservation Foundation, Gangtok.

Hirayama, S. 1933. Butterflies in colour. 2, 8, 45 pp., 60 pls. Sanseido, Tokyo.

Hsu, Y.F. 1990. The genus *Celaenorrhinus* Hübner in Taiwan: a revisional work (Lepidoptera: Hesperiidae). *Bulletin of the Institute of Zoology, Academia Sinica*, **29**: 141–152.

Hsu, Y.F. 1999. Butterflies of Taiwan, vol. 1. 344 pp. Phoenix Park, Luku.

Hsu, Y.F. 2002. Butterflies of Taiwan, vol. 2. 383 pp. Phoenix Park, Luku.

Hsu, Y.F., Chiba, H., Yang, Y.C., Tsukiyama, H., Yang, P.S. & Wang, S.M. A taxonomic review of the Taiwanese skippers described by Shonen Matsumura (Lepidoptera: Hesperiidae). *Zoological Studies* (in press).

Huang, H. 2001. Report of H. Huang's 2000 expedition to S.E. Tibet for Rhopalocera. *Neue Entomologische Nachrichten*, 51: 65–151.

Iuomata, **T.**, **Uémura**, **Y.** & **Yoshimoto**, **H.** 2000. Nomenclatural comments on the new species and replacement names of butterflies by Matsumura, 1907 and 1929. *Tyô to Ga*, **52**: 67–80.

Jong, R. de. 1982. Secondary sexual characters in *Celaenorrhinus* and the delimitation of the genus (Lepidoptera, Hesperiidae). *Journal of Natural History*, 16: 695–705.

Lee, J.Y. & Wang, H.Y. 1997. *Illustrations of butterflies in Taiwan*, vol. 4. 317 pp. Taiwan Museum, Taipei.

Lee, J.Y. & Wang, H.Y. 1999. Butterflies of Taiwan. 268 pp. I-Lan County Museum of Natural History, Ilan.

Lee, J.Y. & Wang, H.Y. 2002. Butterflies of Taiwan in color. 303 pp. Owl Publisher, Taipei.

Lin, C.C. 1994. The butterflies and nature of Taiwan. 162 pp. Three Pigs Publisher, Ilan.

Liu, C.C. 2004. Discover butterfly in Taiwan. 335 pp. Green World Publisher, Ilan.

Matsumura, S. 1907. Notes on the butterflies of Niitakayama. Insect world, II: 5–8, 47–50.

Matsumura, S. 1919. Thousand Insects of Japan (Additamenta), vol. 3. Pp. 1–2, 457–742, 1–34, pls. 26–53. Keiseisha, Tokyo.

Matsumura, S. 1929. *Illustrated Common Insects of Japan*, vol. 1. Butterflies. 45, 66, 37 pp., 16 pls. Shunyodo, Tokyo.

Matsumura, S. 1931. 6000 Illustrations of the Insects of the Japanese Empire. 1497, 23 pp., 10 pls. Toukoushoin, Tokyo.

Okano, M. & Okura, J. 1959. Butterflies of Formosa. 12, 65, 16, 12 pp., 64 pls. Taniguchi Shoten, Tokyo.

Seitz, A. 1927. *The Macrolepidoptera of the World*, vol. 9. The Indo-Australian Rhopalocera. 8, 1197 pp., 175 pls. Alfred Kernen, Stuttgart.

Shirôzu, T. 1960. Butterflies of Formosa in colour. 481 pp. Hoikusha, Osaka.

Smith, C. 1989. Butterflies of Nepal. 352 pp. Tecpress Service, Bangkok.

Smith, C. 1994. Butterflies of Nepal, revised edition. 368 pp. Tecpress Service, Bangkok.

Sonan, J. 1936. Notes on some butterflies from Formosa (4). Zephyrus, 6: 205–216.

Uchida, H. 1991. Charms of Formosa, Island of Everlasting Summer. 216 pp. Uchida, Mumazu. Uchida, H. 1995. An everlasting island with beautiful butterflies. 208 pp. Uchida, Mumazu.

Watanabe, Y. 1998. Butterflies of China. 255 pp. Tombow Publishing Co., Osaka.

Yamanaka, M. 1980. Distribution of Formosan butterflies (6). Tyô to Ga, 30, suppl. 1: 1–141.

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